



# UNITED STATES PATENT AND TRADEMARK OFFICE

11.7

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/583,653

03/28/2007

Frank Brode

02316.2395USWO

3708

23552 7590 11/16/2007  
MERCHANT & GOULD PC  
P.O. BOX 2903  
MINNEAPOLIS, MN 55402-0903

EXAMINER

LEUNG, QUYEN PHAN

ART UNIT

PAPER NUMBER

2874

MAIL DATE

DELIVERY MODE

11/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/583,653

**Applicant(s)**

BRODE ET AL.

**Examiner**

Quyen P. Leung

**Art Unit**

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-17, 21-25 is/are rejected.
- 7) ☐ Claim(s) 11-13 and 18-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060719</u> .  | 6) <input type="checkbox"/> Other: ____                           |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kropp et al (US 2003/0181098). Kropp et al discloses the claimed invention. See figures 5 and 6 and paragraphs [0051]-[0054] for a connection module for telecommunication and data technique, entailing a base plate, onto which connecting modules for optical waveguides or electrical cores can be arranged, with the connecting modules and the base plate manifesting fitting agents corresponding to one another, wherein at least one connecting module(6) for optical waveguides (7) and at least one connecting module

(10') for electrical cores (41) have been arranged on a base plate (8).

FIG. 5

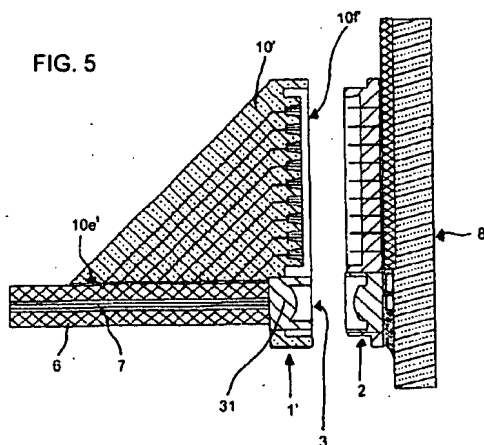
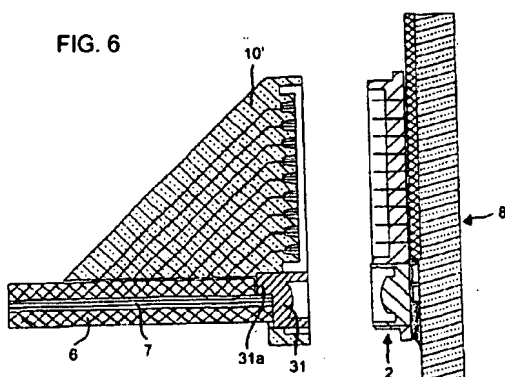


FIG. 6



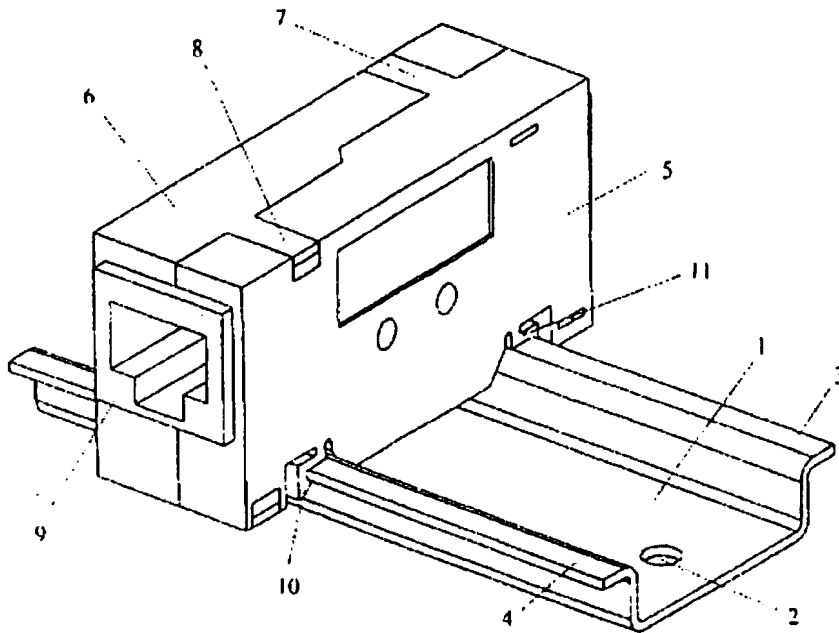
[0051] FIGS. 5 and 6 show an optoelectrical socket, in which the coupling planes of the electrical paths and the optical paths on the printed circuit board 6 are perpendicular to each other.

[0052] According to FIG. 5, the optical interface 3 of a plug-in connecting element 1' is disposed on the end face of the printed circuit board 6, so that the optical coupling plane runs perpendicularly in relation to the surface of the printed circuit board 6. With this orientation, optical signals of the optical waveguide 7 of the printed circuit board 6 can be coupled into the plug-in connecting element 1 or the optical interface 3 without deflection.

[0053] For the electrical coupling of the electrical interface 4 to the printed circuit board 6, a basic body 10' of the plug-in connecting element 1 is formed triangularly in section with two perpendicularly running sides 10e', 10f', between which the electrical contacts 41 run around the basic body 10'. The one side 10f' forms the actual interface and, together with the optically effective region 3 of the plug 1', forms the coupling region in relation to the matching coupling element 2. On the other side 10e', the contacting of the electrical interface with respect to the printed circuit board 6 takes place by soldering. The coupling planes of the electrical paths and the optical paths on the printed circuit board 6 are perpendicular to each other.

[0054] In the case of FIG. 6, it is additionally provided that the region of the optical interface or of the optical element 31 facing the printed circuit board 6 has outer contours 31a enclosing the printed circuit board 6, in order to permit a passive adjustment of the plug-in connecting element 1' with respect to the printed circuit board by an automatic form fit.

Claims 1-7, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by TKM TELEKOMMUNIKATION & ELEKTRONIK GMBH (DE 200 12 572 U1).



Re claim 1, TKM discloses a connection module entailing a base plate (1,2,3,4) and at least one connecting module (housing, 5-11) for optical waveguides and at least one connecting module (housing, 5-11) for electrical cores. See English language translation provided by applicant which teaches plural housings for optical waveguides and/or electrical cores.

Re claims 2, 5, 14, note connecting modules' elements 10, 11 which detachably connect with the base plate.

Re claim 3, see the plate's connecting elements (3,4).

Re claims 6-7, see element 9 for the contacts being insulation displacement contacts.

Claims 14, 15, 17, 21-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Dupont (EP 0 290 188 A). Dupont clearly discloses the claimed invention.

Re claims 14, 15, 17, 21-25, Dupont clearly shows this in figure 2: housing (10, 14, 16, 18), and fiber guidance structures (v-shaped grooves 20-23) for at least two waveguides (34,39) and base (43). Re the fiber being plastic or glass, see col. 8 lines 13. Re the fluid, see col. 8 line 31.

Claims 8-10, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over TKM (DE 200 12 572). TKM has been discussed above except for the fiber guidance structures (claims 8, 16), the V-shaped grooves (claim 10). Fiber guidance structures and v-shaped grooves are well-known for guiding fibers. Lacking any stated criticality it would have been an obvious choice of design to one of ordinary skill in the art to modify TKM by using well-known structures and grooves.

### ***Conclusion***

Claims 11-13, 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quyen P. Leung whose telephone number is (571) 272-8188. The examiner can normally be reached on normally M-F, 6:15 am - 2:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone

Application/Control Number:  
10/583,653  
Art Unit: 2874

Page 6

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quyen Leung/  
Quyen Leung  
Primary Patent Examiner  
Group Art Unit 2874

qpl